

RAW SEQUENCE LISTING

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Application Serial Number: 10/563,944
Source: IFwp
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1FWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/563,944

DATE: 01/19/2006

TIME: 13:18:13

Input Set : A:\sequence listing ascii.txt
 Output Set: N:\CRF4\01192006\J563944.raw

3 <110> APPLICANT: Cytos Biotechnology AG
 4 Bachmann, Martin F
 5 Schwarz, Katrin
 7 <120> TITLE OF INVENTION: PACKAGED VIRUS-LIKE PARTICLES
 9 <130> FILE REFERENCE: C62863PC
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/563,944
 C--> 11 <141> CURRENT FILING DATE: 2006-01-10
 11 <150> PRIOR APPLICATION NUMBER: US 60/485,717
 12 <151> PRIOR FILING DATE: 2003-07-10
 14 <160> NUMBER OF SEQ ID NOS: 60
 16 <170> SOFTWARE: PatentIn version 3.2
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 132
 20 <212> TYPE: PRT
 21 <213> ORGANISM: Bacteriophage Q-beta
 23 <400> SEQUENCE: 1
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 26 1 5 10 15
 29 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
 30 20 25 30
 33 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
 34 35 40 45
 37 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val
 38 50 55 60
 41 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
 42 65 70 75 80
 45 Asp Pro Ser Val Thr Arg Gln Ala Tyr Ala Asp Val Thr Phe Ser Phe
 46 85 90 95
 49 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
 50 100 105 110
 53 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
 54 115 120 125
 57 Asn Pro Ala Tyr
 58 130
 61 <210> SEQ ID NO: 2
 62 <211> LENGTH: 329
 63 <212> TYPE: PRT
 64 <213> ORGANISM: Bacteriophage Q-beta
 66 <400> SEQUENCE: 2
 68 Met Ala Lys Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Lys Asp Gly
 69 1 5 10 15
 72 Lys Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly
 73 20 25 30

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76 Val Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg
 77 35 40 45
 80 Val Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys
 81 50 55 60
 84 Val Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser
 85 65 70 75 80
 88 Cys Asp Pro Ser Val Thr Arg Gln Ala Tyr Ala Asp Val Thr Phe Ser
 89 85 90 95
 92 Phe Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu
 93 100 105 110
 96 Leu Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln
 97 115 120 125
 100 Leu Asn Pro Ala Tyr Trp Thr Leu Leu Ile Ala Gly Gly Ser Gly
 101 130 135 140
 104 Ser Lys Pro Asp Pro Val Ile Pro Asp Pro Pro Ile Asp Pro Pro Pro
 105 145 150 155 160
 108 Gly Thr Gly Lys Tyr Thr Cys Pro Phe Ala Ile Trp Ser Leu Glu Glu
 109 165 170 175
 112 Val Tyr Glu Pro Pro Thr Lys Asn Arg Pro Trp Pro Ile Tyr Asn Ala
 113 180 185 190
 116 Val Glu Leu Gln Pro Arg Glu Phe Asp Val Ala Leu Lys Asp Leu Leu
 117 195 200 205
 120 Gly Asn Thr Lys Trp Arg Asp Trp Asp Ser Arg Leu Ser Tyr Thr Thr
 121 210 215 220
 124 Phe Arg Gly Cys Arg Gly Asn Gly Tyr Ile Asp Leu Asp Ala Thr Tyr
 125 225 230 235 240
 128 Leu Ala Thr Asp Gln Ala Met Arg Asp Gln Lys Tyr Asp Ile Arg Glu
 129 245 250 255
 132 Gly Lys Lys Pro Gly Ala Phe Gly Asn Ile Glu Arg Phe Ile Tyr Leu
 133 260 265 270
 136 Lys Ser Ile Asn Ala Tyr Cys Ser Leu Ser Asp Ile Ala Ala Tyr His
 137 275 280 285
 140 Ala Asp Gly Val Ile Val Gly Phe Trp Arg Asp Pro Ser Ser Gly Gly
 141 290 295 300
 144 Ala Ile Pro Phe Asp Phe Thr Lys Phe Asp Lys Thr Lys Cys Pro Ile
 145 305 310 315 320
 148 Gln Ala Val Ile Val Val Pro Arg Ala
 149 325
 152 <210> SEQ ID NO: 3
 153 <211> LENGTH: 128
 154 <212> TYPE: PRT
 155 <213> ORGANISM: Bacteriophage PP7
 157 <400> SEQUENCE: 3
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 160 1 5 10 15
 163 Thr Glu Ile Gln Ser Thr Ala Asp Arg Gln Ile Phe Glu Glu Lys Val
 164 20 25 30
 167 Gly Pro Leu Val Gly Arg Leu Arg Leu Thr Ala Ser Leu Arg Gln Asn
 168 35 40 45

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171 Gly Ala Lys Thr Ala Tyr Arg Val Asn Leu Lys Leu Asp Gln Ala Asp
 172 50 55 60
 175 Val Val Asp Cys Ser Thr Ser Val Cys Gly Glu Leu Pro Lys Val Arg
 176 65 70 75 80
 179 Tyr Thr Gln Val Trp Ser His Asp Val Thr Ile Val Ala Asn Ser Thr
 180 85 90 95
 183 Glu Ala Ser Arg Lys Ser Leu Tyr Asp Leu Thr Lys Ser Leu Val Ala
 184 100 105 110
 187 Thr Ser Gln Val Glu Asp Leu Val Val Asn Leu Val Pro Leu Gly Arg
 188 115 120 125
 191 <210> SEQ ID NO: 4
 192 <211> LENGTH: 132
 193 <212> TYPE: PRT
 194 <213> ORGANISM: Artificial Sequence
 196 <220> FEATURE:
 197 <223> OTHER INFORMATION: Bacteriophage Qbeta 240 mutant
 199 <400> SEQUENCE: 4
 201 Ala Lys Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Arg Asp Gly Lys
 202 1 5 10 15
 205 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
 206 20 25 30
 209 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
 210 35 40 45
 213 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val
 214 50 55 60
 217 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
 218 65 70 75 80
 221 Asp Pro Ser Val Thr Arg Gln Lys Tyr Ala Asp Val Thr Phe Ser Phe
 222 85 90 95
 225 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
 226 100 105 110
 229 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
 230 115 120 125
 233 Asn Pro Ala Tyr
 234 130
 237 <210> SEQ ID NO: 5
 238 <211> LENGTH: 132
 239 <212> TYPE: PRT
 240 <213> ORGANISM: Artificial Sequence
 242 <220> FEATURE:
 243 <223> OTHER INFORMATION: Bacteriophage Q-beta 243 mutant
 245 <400> SEQUENCE: 5
 247 Ala Lys Leu Glu Thr Val Thr Leu Gly Lys Ile Gly Lys Asp Gly Lys
 248 1 5 10 15
 251 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
 252 20 25 30
 255 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
 256 35 40 45
 259 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val

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260      50          55          60
263 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
264 65           70           75           80
267 Asp Pro Ser Val Thr Arg Gln Lys Tyr Ala Asp Val Thr Phe Ser Phe
268           85           90           95
271 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
272           100          105          110
275 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
276           115          120          125
279 Asn Pro Ala Tyr
280           130
283 <210> SEQ ID NO: 6
284 <211> LENGTH: 132
285 <212> TYPE: PRT
286 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
289 <223> OTHER INFORMATION: Bacteriophage Q-beta 250 mutant
291 <400> SEQUENCE: 6
293 Ala Arg Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Arg Asp Gly Lys
294 1           5           10           15
297 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
298           20           25           30
301 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
302           35           40           45
305 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val
306           50           55           60
309 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
310 65           70           75           80
313 Asp Pro Ser Val Thr Arg Gln Lys Tyr Ala Asp Val Thr Phe Ser Phe
314           85           90           95
317 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
318           100          105          110
321 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
322           115          120          125
325 Asn Pro Ala Tyr
326           130
329 <210> SEQ ID NO: 7
330 <211> LENGTH: 132
331 <212> TYPE: PRT
332 <213> ORGANISM: Artificial Sequence
334 <220> FEATURE:
335 <223> OTHER INFORMATION: Bacteriophage Q-beta 251 mutant
337 <400> SEQUENCE: 7
339 Ala Lys Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Lys Asp Gly Arg
340 1           5           10           15
343 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
344           20           25           30
347 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
348           35           40           45

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Input Set : A:\sequence listing ascii.txt
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351 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val
352 50 55 60
355 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
356 65 70 75 80
359 Asp Pro Ser Val Thr Arg Gln Lys Tyr Ala Asp Val Thr Phe Ser Phe
360 85 90 95
363 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
364 100 105 110
367 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
368 115 120 125
371 Asn Pro Ala Tyr
372 130
375 <210> SEQ ID NO: 8
376 <211> LENGTH: 132
377 <212> TYPE: PRT
378 <213> ORGANISM: Artificial Sequence
380 <220> FEATURE:
381 <223> OTHER INFORMATION: Bacteriophage Q-beta 259 mutant
383 <400> SEQUENCE: 8
385 Ala Arg Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Lys Asp Gly Arg
386 1 5 10 15
389 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val
390 20 25 30
393 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val
394 35 40 45
397 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val
398 50 55 60
401 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys
402 65 70 75 80
405 Asp Pro Ser Val Thr Arg Gln Lys Tyr Ala Asp Val Thr Phe Ser Phe
406 85 90 95
409 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu
410 100 105 110
413 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu
414 115 120 125
417 Asn Pro Ala Tyr
418 130
421 <210> SEQ ID NO: 9
422 <211> LENGTH: 185
423 <212> TYPE: PRT
424 <213> ORGANISM: Hepatitis B virus
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429 1 5 10 15
432 Ser Phe Leu Pro Ser Asp Phe Phe Pro Ser Val Arg Asp Leu Leu Asp
433 20 25 30
436 Thr Ala Ser Ala Leu Tyr Arg Glu Ala Leu Glu Ser Pro Glu His Cys
437 35 40 45
440 Ser Pro His His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp Gly Glu

VERIFICATION SUMMARY

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DATE: 01/19/2006

TIME: 13:18:14

Input Set : A:\sequence listing ascii.txt
Output Set: N:\CRF4\01192006\J563944.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date